

report

I Algorithms

1. Weighted undirected graph
Prim's maximum spanning tree algorithm
2. Weighted directed graph
Maximum spanning tree algorithm (similar to Kruskal's algorithm)
+ DFS (detect cycle)

II Data structures

1. Weighted undirected graph
Adjacent matrix
2. Weighted directed graph
Adjacent list

III Findings

1. Weighted undirected graph
We can obtain correct results by greedy algorithm (maximum spanning tree).
2. Weighted directed graph
It is a NP-hard problem. The algorithm I use is just an approximate algorithm.